Claims

1. A method for treating a disease or disorder with an underlying dysregulation of the emotional functionality comprising the use of a compound having (i) a selective affinity for the Dopamine-4 (D4) receptor with a pKi value equal to or higher than 8 towards the D4 receptor and less than 8 towards other Dopamine receptors, and (ii) a selective affinity for the 5-HT2A receptor with a pKi value equal to or higher than 8 towards the 5-HT2A receptor and less than 8 towards other 5HT receptors and wherein said compound is administered to a patient in a dose ranging between 5 and 15 mg of the active ingredient.

2. The method of claim 1 wherein said compound is PIPAMPERONE.

3 . The method of claim 2 wherein said disease or disorder is selected from the group comprising anxiety disorders, eating disorders, premenstrual syndrome, somatoform disorders, factitious disorders, dissociative disorders, sexual and gender identity disorders, sleep disorders, adjustment disorders, cognitive disorders, impulse control disorders, pervasive development, attention-deficit and disruptive behaviour disorders, substance-related disorders, personality disorders, psychological factors affecting medical conditions, malingering, antisocial behaviour, bereavement, occupational, identity, phase of life, academic problem, problems related to abuse or neglect.

4. The method according to claim 1 or 2 wherein a second compound is administered simultaneously with, separate from or sequential to the first compound as defined in claim 1 or 2 to augment the therapeutic effect of said second compound.

5. The method according to claim 1 or 2 wherein a second compound is administered simultaneously with, separate from or sequential to the first compound as defined in claim 1 or 2 to provide a faster onset of the therapeutic effect of said second compound.

6. The method of claim 4 or 5 wherein said disease or disorder is selected from the group comprising mood disorders, anxiety disorders, schizophrenia and other psychotic disorders, eating disorders, premenstrual syndrome, somatoform disorders, factitious disorders, dissociative disorders, sexual and gender identity disorders, sleep disorders, adjustment disorders, cognitive disorders, impulse control disorders, pervasive development, attention-deficit and disruptive behaviour disorders, substance-related disorders, personality disorders, psychological factors affecting medical conditions,

malingering, antisocial behaviour, bereavement, occupational, identity, phase of life, academic problem, problems related to abuse or neglect.

7. The method of any of claims 4 to 6 wherein the first compound is administered daily at least one day before administering said second compound.

8. The method of any of claims 4 to 7 said second compound is a selective serotonin re-uptake inhibitor.

9. The method of claim 8 wherein said selective serotonin re-uptake inhibitor is chosen from the group comprising CITALOPRAM, fluoxetine, venlafaxine, fluvoxamine, paroxetine, sertraline, milnacipran and duloxetine or a pro-drug or an active metabolite thereof, or a pharmaceutically acceptable salt thereof.

10. The method of claim 9 wherein said serotonin re-uptake inhibitor is CITALOPRAM and is administered in a dose ranging between 10 and 40 mg of the active ingredient.

11. A method for treating a disease or disorder with an underlying dysregulation of the emotional functionality comprising the use of a composition comprising a first compound having (i) a selective affinity for the D4 receptor with a pKi value equal to or higher than 8 towards the D4 receptor and less than 8 towards other Dopamine receptors, and a second compound having (ii) a selective affinity for the 5-HT2A receptor with a pKi value equal to or higher than 8 towards the 5-HT2A receptor and less than 8 towards other 5HT receptors.

12. The method of claim 11 wherein said disease or disorder is selected from the group comprising mood disorders, anxiety disorders, schizophrenia and other psychotic disorders, eating disorders, premenstrual syndrome, somatoform disorders, factitious disorders, dissociative disorders, sexual and gender identity disorders, sleep disorders, adjustment disorders, cognitive disorders, impulse control disorders, pervasive development, attention-deficit and disruptive behaviour disorders, substance-related disorders, personality disorders, psychological factors affecting medical conditions, malingering, antisocial behaviour, bereavement, occupational, identity, phase of life, academic problem, problems related to abuse or neglect.

13. The method of claim 11 or 12 wherein said first compound is chosen from the group comprising PIPAMPERONE, FANANSERIN, L-745,870, PNU-101387G and U-101387 and wherein said second compound is chosen from the group comprising

PIPAMPERONE, FANANSERIN, ORG 5222, ZOTEPINE, OLANZEPINE, CLOZAPINE, S16924, S18327, AMPEROZIDE, SERTINDOLE, MDL 100.907, TIOSPIRONE, FLUSPIRILENE, OCAPERIDONE, RISPERIDONE and ZIPRASIDONE or a pro-drug or an active metabolite thereof, or a pharmaceutically acceptable salt thereof.

14. The method of any of claims 11 to 13 wherein said composition is administered to a patient in a dose ranging between 0.5 µg and 300 mg for each of the active ingredients.

15. The method of any of claims 11 to 14 wherein said composition is administered simultaneously with, separate from or sequential to a third compound to augment the therapeutic effect of said third compound.

16. The method of any of claims 12 to 15 wherein said composition is administered simultaneously with, separate from or sequential to a third compound to provide a faster onset of the therapeutic effect of said third compound.

17. The method of claim 15 or 16 wherein said third compound is a selective serotonin re-uptake inhibitor.

18. The method of claim 17 wherein said selective serotonin re-uptake inhibitor is chosen from the group comprising CITALOPRAM, fluoxetine, venlafaxine, fluvoxamine, paroxetine, sertraline, milnacipran and duloxetine or a pro-drug or an active metabolite thereof, or a pharmaceutically acceptable salt thereof.

19. The method of claim 18 wherein said serotonin re-uptake inhibitor is CITALOPRAM and is administered in a dose ranging between 10 and 40 mg of the active ingredient.

20. A method for treating a disease or disorder as defined in claim 12 with an underlying dysregulation of the emotional functionality comprising the use of a compound as defined in claim 1 or of a composition as defined in claim 11, characterized in that said compound or composition is administered simultaneously with, separate from or sequential to a nor-epinephrine re-uptake inhibitor to augment the therapeutic effect of said nor-epinephrine re-uptake inhibitor.

21. A method for treating a disease or disorder as defined in claim 12 with an underlying dysregulation of the emotional functionality comprising the use of a compound as defined in claim 1 or of a composition as defined in claim 11, characterized in that said compound or composition is administered simultaneously with, separate from or

sequential to a nor-epinephrine re-uptake inhibitor to provide a faster onset of the therapeutic effect of said nor-epinephrine re-uptake inhibitor.

22. The method according to claim 20 or 21 wherein said nor-epinephrine re-uptake inhibitor is chosen from the group comprising tandamine, pirandamine, ciclazindol, fluparoxan, lortalamine, talsupram, talopram, prindamine, nomifensine, viloxazine, tomoxetine, duloxetine, venlafaxine, milnacipran and reboxetine, or a pro-drug or an active metabolite thereof, or a pharmaceutically acceptable salt thereof.

23. A method for treating a disease or disorder as defined in claim 12 with an underlying dysregulation of the emotional functionality comprising the use of a compound as defined in claim 1 or of a composition as defined in claim 11, characterized in that said compound or composition is administered simultaneously with, separate from or sequential to a neuroleptic agent to augment the therapeutic effect of said neuroleptic agent.

24. A method for treating a disease or disorder as defined in claim 12 with an underlying dysregulation of the emotional functionality comprising the use of a compound as defined in claim 1 or of a composition as defined in claim 11, characterized in that said compound or composition is administered simultaneously with, separate from or sequential to a neuroleptic agent to provide a faster onset of the therapeutic effect of said neuroleptic agent.

25. The method according to claim 23 or 24 wherein said neuroleptic agent is chosen from the group comprising chlorpromazine, haloperidol, perphenazine, thioridazine, mesoridazine, trifluoperazine, fluphenazine, clozapine, olanzapine, risperidone, ziprasidone, quetiapine, sertindole, aripiprazole, sonepiprazole, blonanserin, iloperidone, perospirone, raclopride, zotepine, DU-127090, ORG-5222, SM-13496, amisulpride, CP-361428, Lu 35-138, balaperidone, S-18327, WAY-135452, eplivanserin, E-5842, SR-31742, NE-100, osanetant, SR-141716, SR-48692, BSF-201640, BSF-190555, LAX-101a, sarizotan, CX-691 and SB-271046, or a pro-drug or active metabolite thereof, or a pharmaceutically acceptable salt thereof.

26. A method for treating a disease or disorder as defined in claim 12 with an underlying dysregulation of the emotional functionality comprising the use of a compound as defined in claim 1 or of a composition as defined in claim 11, characterised in that said compound or composition is administered simultaneously with, separate from or sequential to an NK1 antagonist to augment the therapeutic effect of said NK1 antagonist.

27. A method for treating a disease or disorder as defined in claim 12 with an underlying dysregulation of the emotional functionality comprising the use of a compound as defined in claim 1 or of a composition as defined in claim 11, characterised in that said compound or composition is administered simultaneously with, separate from or sequential to an NK1 antagonist to provide a faster onset of the therapeutic effect of said NK1 antagonist.

28. The method according to claim 26 or 27 wherein said NK1 antagonist is chosen from the group comprising MK-0869, GW597599, GW679769, GW823296, Compound A, NKP608, CP-96,345 (cis-3-(2-methoxybenzyl-amino-2-benzhydrylquinuclidine), CP-122721, CP-99994, GR-82334 (D-Pro9-[Spiro-y-lactam]-Leu10,Trp11)-Physalaemin(1-11)), R673, TAK-637, RPR100893 (perhydroisoindolol), RP-67580, LY303870, SR-140333 and trans-4-hydroxy-1-(1H-indol-3-ylcarbonyl)-L-prolyl-N-methyl-N-(phenylmethyl)-L-tyrosineamide (a derivative of FK888), or a pro-drug or an active metabolite thereof, or a pharmaceutically acceptable salt thereof.

29. The method according to claim 28 wherein said NK 1 antagonist is MK-0869 and is administered in a dose ranging between 10 and 160 mg of the active ingredient.

30. The method according to claim 29 wherein MK-0869 is administered in a dose of 80 mg of the active ingredient.

31. The method according to any of claims 26 to 30 wherein the compound having (i) a selective affinity for the Dopamine-4 (D4) receptor with a pKi value equal to or higher than 8 towards the D4 receptor and less than 8 towards other Dopamine receptors, and (ii) a selective affinity for the 5-HT2A receptor with a pKi value equal to or higher than 8 towards the 5-HT2A receptor and less than 8 towards other 5HT receptors serotonin re-uptake inhibitor is PIPAMPERONE.

32. The method according to any of claims 26 to 30 wherein PIPAMPERONE is administered in a dose ranging between 5 and 15 mg of the active ingredient and wherein MK-0869 is administered in a dose ranging between 10 and 160 mg of the active ingredient.

33. A method for treating a muscoskeletal disease or disorder comprising the use of a compound as defined in claim 1 or of a composition as defined in claim 11, characterized in that said compound or composition is administered simultaneously with,

separate from or sequential to a COX-2 inhibitor to augment the therapeutic effect of said COX-2 inhibitor.

34. A method for treating a muscoskeletal disease or disorder comprising the use of a compound as defined in claim 1 or of a composition as defined in claim 11, characterized in that said compound or composition is administered simultaneously with, separate from or sequential to a COX-2 inhibitor to provide a faster onset of the therapeutic effect of said COX-2 inhibitor.

35. The method of claim 33 or 34 wherein said disease or disorder is selected from the group comprising rheumatoid arthritis, osteoarthritis or ankylosing spondylitis.

36. The method of any of claims 33 to 35 wherein said COX-2 inhibitor is chosen from the group comprising celecoxib, rofecoxib, meloxicam, piroxicam, deracoxib, parecoxib, valdecoxib, etoricoxib, a chromene derivative, a chroman derivative, N-(2-cyclohexyloxynitrophenyl)methane sulfonamide, COX189, ABT963 and JTE-522, or a pro-drug or active metabolite thereof, or a pharmaceutically acceptable salt thereof.

37. A method for preparing a compound having a selective D4 and 5-HT2A antagonist, reverse agonist or partial agonist activity comprising the following steps: (a) measuring the selective affinity of a test compound to the D4 receptor and selecting a compound that has a pKi value equal to or greater than 8 towards the D4 receptor in respect to all the other D receptors, and measuring the selective efficacy of the selected compound to the D4 receptor and selecting a compounds which is a selective antagonist, inverse agonist or partial agonist of the D4 receptor; (b) measuring the selective affinity of a test compound to the 5-HT2A receptor and selecting a compound that has a pKi value equal to or greater than 8 towards the 5-HT2A receptor in respect to all the other 5HT receptors, and measuring the selective efficacy of the selected compound to the 5-HT2A receptor and selecting a compounds which is a selective antagonist, inverse agonist or partial agonist of the 5-HT2A receptor; (c) identifying a compound which is selected in (a) and (b), (d) preparing the compound identified in (c).

38. Compound prepared by the method of claim 37.